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| 09/539,409      | 03/30/2000  | Masahiko Yamada      | Q56564              | 7984             |

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Sughrue Mion Zinn Macpeak & Seas PLLC  
2100 Pennsylvania Avenue N W  
Washington, DC 20037-3202

EXAMINER

BHATNAGAR, ANAND P

ART UNIT PAPER NUMBER

2623

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/539,409

**Applicant(s)**

YAMADA, MASAHIKO

**Examiner**

Anand Bhatnagar

**Art Unit**

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 34-37 is/are rejected.
- 7) ☒ Claim(s) 32 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/06/04 has been entered.
2. Applicant's arguments, see paper #12, filed 07/06/04, with respect to the rejection(s) of claim(s) 1-8 and 16-23 under 35 USC 102 and claims 9-15 and 24-31 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of IBM Technical Disclosure Bulletin ("Selective Area Image Compression," Volume 29, Issue 12, page number 5356-5357, May 1, 1987, will be further referred as "ITDB") and Wang et al. (U.S. patent 4,598,369). Examiner refers to the rejection below.

### ***Claim Rejections - 35 USC § 112***

3. Claims 34 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the

time the application was filed, had possession of the claimed invention.

Nowhere, in the specifications, as originally filed, does the calculation of the angle information take place of the measuring point. If applicant's representative believes that there is support for this limitation then please show where it is supported in the specification, as originally filed. Examiner will address these claims as best understood

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A.) Claims 1-4, 16-19, 31, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM Technical Disclosure Bulletin ("Selective Area Image Compression," Volume 29, Issue 12, page number 5356-5357, May 1, 1987, will be further referred as "ITDB") and Wang et al. (U.S. patent 4,598,369).

Regarding claims 1 and 16: A storing method comprising the step of:  
storing a radiation image displayed on a display screen of an image display unit, the radiation image including a measuring point designated for measuring geometric features of an object included in a radiation image (fig. and the second whole paragraph on page 2, wherein the radiation image and the coordinates "measuring points" are stored. The measuring points are of a specific

region in the radiation image of a specific object in the image to be analyzed).

ITDB discloses to obtain a specific region of a radiation image, containing an object, by placing coordinate points "measuring points" in order to define the boundaries of the region wherein the geometrical features of the region can be obtained from the designated coordinates. It would have been obvious for one skilled in the art, based on the ITDB disclosure, to modify the system to set the coordinates for just the object region and obtain its geometric features since the disclosure teaches to do it for a whole region, wherein the object is part of the whole region.

wherein positional information of said measuring point specified on said display screen is stored in a storage medium along with said radiation image (fig. and the second whole paragraph on page 2, wherein the radiation image and the coordinates "measuring points" are stored. These measuring points give the location/position of the region/object).

ITDB discloses to store a radiation image along with a specific region which has been highlighted by setting coordinates "measuring points" of the region. ITDB does not teach to store a radiation image of one that is displayed first. Wang et al. teaches to store radiation images that are displayed (Wang et al.; col. 2 lines 20-35). It would have been obvious to one skilled in the art to combine the teaching of Wang et al. to that of ITDB because they are analogous in storage of radiographic images. One skilled in the art would have been motivated to incorporate the teaching of Wang et al. into the system of ITDB to

allow the presentation of a diagnostic quality x-ray image taken at any selected parallel plane (Wang et al. col. 1 lines 23-25).

Regarding claims 2 and 17: The storing method wherein a result of measurement, obtained based on said positional information, is stored along with said radiation image and said positional information (ITDB; second paragraph on page 2, wherein the image and the coordinates/location is stored together).

Regarding claims 3, 4, 18, and 19: The storing method wherein said positional information and a measurement result of said measuring point are stored as numerical information (ITDB; second paragraph on page 2. It is inherent that the coordinates X1, X2, Y1, Y2, etc. and/or locations are numerical values).

Regarding claim 31: The storing method wherein the measuring point is specified by a user input (ITDB; third paragraph on page 2, wherein the region, B, is designated by a light pen, i.e. manually designated by a user).

Regarding claims 34 and 36: The storing method wherein the geometric features include at least one of distance and angle information of the measuring point in relation to the object of the radiation image (ITDB; second paragraph on page 2, wherein the coordinates "measuring points" are designated of a region from which the region can be analyzed for it's dimensions and/or distance to the object).

Regarding claims 35 and 37: The storing method wherein the positional information of said measuring point is stored related to the radiation image (ITDB; second paragraph on page 2).

B.) Claims 5, 6, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM Technical Disclosure Bulletin ("Selective Area Image Compression," Volume 29, Issue 12, page number 5356-5357, May 1, 1987, will be further referred as "ITDB"), as modified by Wang et al. (U.S. patent 4,598,369), and further in view of Kuni et al. (Japanese patent number JP405272952A).

Regarding claims 5, 6, 20, and 21: The storing method wherein said positional information and a measurement result of said measuring point are stored as image information that is embedded in said radiation image and displayed.

ITDB discloses to store a radiation image along with a specific region which has been highlighted by setting coordinates "measuring points" of the region. ITDB does not disclose to embed the image information into the image. Kuni et al. teaches to embed image information into an image (Kuni et al.; Constitution part of the Abstract). It would have been obvious to one skilled in the art to combine the teaching of Kuni et al. to that of ITDB, as modified by Wang et al., because they are analogous in the field of radiographic images. One in the art would have been motivated to incorporate the teaching of Kuni et al., modified

for storing and displaying this embedded image, to the system of ITDB, as modified by Wang et al., in order for an inexperienced person to perform secure inspection free from errors (Kuni et al.; constitution part of the abstract).

C.) Claims 7, 8, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM Technical Disclosure Bulletin ("Selective Area Image Compression," Volume 29, Issue 12, page number 5356-5357, May 1, 1987, will be further referred as "ITDB"), as modified by Wang et al. (U.S. patent 4,598,369), and further in view of Nakajima et al. (U.S. patent 4,944,189).

Regarding claims 7, 8, 22, and 23: The storing method as set forth in claim 1, wherein said positional information and a measurement result of said measuring point are stored as overlay image information that is overlaid on said radiation image and displayed.

ITDB discloses to store a radiation image along with a specific region which has been highlighted by setting coordinates "measuring points" of the region. ITDB does not teach to overlay the image information onto the image. Nakajima et al. teaches to overlay the obtained image information onto the tomographic image (Nakajima et al.; col. 9 lines 59-67). It would have been obvious to one skilled in the art to combine the teaching of Nakajima et al. to that of ITDB, as modified by Wang et al., because they are analogous in the field of tomographic/radiographic imaging of medical images. One in the art would have been motivated to incorporate the teaching of Nakajima et al., modified for



storing and displaying this overlaid image, to the system of ITDB, as modified by Wang et al., in order for the information to be depicted explicitly on a screen (Nakajima et al.; col. 9 lines 65-67).

D.) Claims 9-12, 14, 15, 24-27, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM Technical Disclosure Bulletin ("Selective Area Image Compression," Volume 29, Issue 12, page number 5356-5357, May 1, 1987, will be further referred as "ITDB"), as modified by Wang et al. (U.S. patent 4,598,369), and further in view of Hama et al. (U.S. patent 4,751,507).

Regarding claims 9-12 and 24-27: The storing method wherein said radiation image is an entire image representing the whole of said radiation image and an enlarged image of a portion of said entire image displayed for specifying said measuring point.

ITDB discloses to store a whole radiation image, region A, and a portion of a radiation image, region B (ITDB; fig. and second paragraph on page 2). ITDB does not teach to display the whole image and an enlarged image of a portion of the entire image. Hama et al. teaches to display an entire image simultaneously with an enlarged portion of the image (Hama et al.; fig. 5, col. 1 lines 10-21 and col. 4 lines 32-40). It would have been obvious to one skilled in the art to combine the teachings of Hama et al. to that of ITDB, as modified by Wang et al., because they are analogous in image processing. One in the art would have been motivated to incorporate the teaching of Hama et al. to the system of ITDB,

as modified by Wang et al., in order for a operator not having to alternate between the entire image and an enlarged portion of the image (Hama et al.; col. 1 lines 62-67).

Regarding claims 14 and 29: The storing method wherein said enlarged image is obtained by enlarging a portion of said entire image displayed on said display screen, indicated by an indicating mark, and also by overwriting and displaying the enlarged portion on an area including said portion. It is rejected for same reasons as claim 13 above and for the following limitation of overwriting (Hama et al.; col. 6 lines 21-25, wherein the overlying is read as "overwriting"). The obvious and motivation are the same as claim 9 above.

Regarding claims 15 and 30: The storing method wherein said enlarged image is obtained by enlarging and displaying a portion, indicated in said entire image by an indicating mark, on an area on the display screen differing from an area on which said entire image is displayed (Hama et al.; fig. 5 elements 22-26 and col. 4 lines 32-35, wherein the enlarged portion of the image and the entire image are shown on two different areas of the screen/display). The obvious and motivation are the same as claim 9 above.

E.) Claims 13 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM Technical Disclosure Bulletin ("Selective Area Image Compression," Volume 29, Issue 12, page number 5356-5357, May 1, 1987, will be further referred as "ITDB"), as modified by Wang et al. (U.S. patent 4,598,369)

and Kuni et al. (Japanese patent number JP405272952A), and further in view of Hama et al. (U.S. patent 4,751,507).

Regarding claims 13 and 28: They are rejected for the same reasons as claim 9 above.

***Allowable Subject Matter***

5. Claims 32 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hishinuma et al. (U.S. patent 4,564,861) for placing a marker on a radiographic image.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (703) 306-5914, whose supervisor is Amelia Au whose number is 703-308-6604, group fax is 703-872-9306, and Tech center 2600 customer service office number is 703-306-0377.

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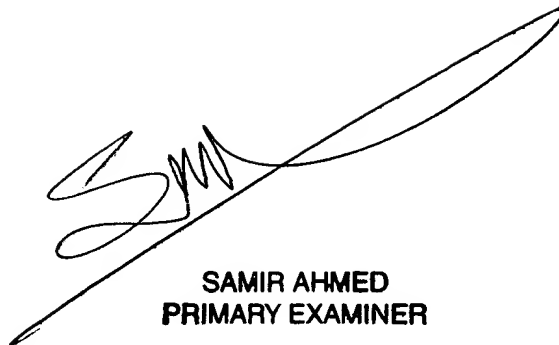
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Anand Bhatnagar

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September 16, 2004



**SAMIR AHMED**  
**PRIMARY EXAMINER**